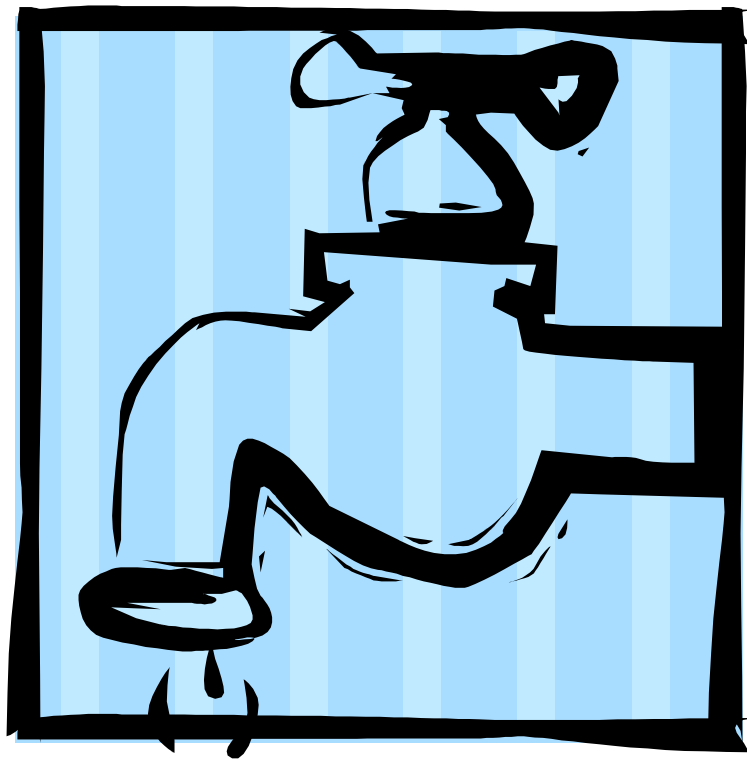


Bureau of Water

South Carolina Department of Health and Environmental Control

SOUTH CAROLINA PUBLIC WATER SYSTEM COMPLIANCE REPORT:

Calendar Year 2006



June 2007

South Carolina Department of Health and Environmental Control:

***South Carolina Public Water System Annual Compliance Report
for Calendar Year 2006***

Table of Contents

	<u>Page No.</u>
List of Figures.....	ii
Executive Summary.....	1
Introduction.....	2
General Information on SC Public Water Systems.....	4
Information on Violations, Compliance, and Enforcement.....	5
Information on Variances and Exemptions.....	13
Conclusions	14
Report Distribution and Availability.....	18

Appendix A: Violation Table for Calendar Year 2006

**Appendix B: System-Specific Maximum Contaminant Level/Treatment Technique
Violations Table for Calendar Year 2006**

LIST OF FIGURES

	<u>Page No.</u>
Figure 1 Public Water System Enforcement Actions – Significant Non-Compliance (SNC) Systems for Calendar Year 2006.....	6
Figure 2 Public Water System Enforcement Actions - All Systems with Violations for Calendar Year 2006.....	8
Figure 3.1 Public Water System Violations - Calendar Years 2002 - 2006.....	10
Figure 3.2 Public Water System Violations - M/R v. MCL/TT for Calendar Years 2002 - 2006.....	11
Figure 3.3 Public Water System Violations - By Violation Category for Calendar Years 2002 - 2006.....	12
Figure 4.1 Public Water System Violations - Water Quality Violations by System Type for Calendar Year 2006.....	16
Figure 4.2 Public Water System Violations - Total Violations by System Type for Calendar Year 2006.....	17

EXECUTIVE SUMMARY

The 1996 Safe Drinking Water Act Amendments require all primacy states to compile and submit annual compliance reports to the U.S. Environmental Protection Agency (USEPA). This is the **tenth** annual report submitted under these amendments and covers calendar year **2006**.

Of the State of South Carolina's one-thousand four-hundred seventy-six **[1,476]** federally-defined public water systems (PWS), **99%** were considered to be in significant compliance with drinking water regulatory requirements in calendar year **2006**. Of the approximate **1%** of systems [or **nine [9]** systems] that were considered to be in significant noncompliance (SNC): seven **[7]** systems are under either a Consent or Administrative Order; one **[1]** system is in enforcement, and one **[1]** has returned to compliance (RTCd).

There were one-hundred forty-four **[144]** systems that incurred a total of two-hundred forty-five **[245]** violations during **2006**. Of the one-hundred forty-four **[144]** systems that incurred violations, ninety-nine **[99]** or approximately **69%** of the systems incurred only a single violation during the year. Eighty-one **[81]** systems had Maximum Contaminant Level (MCL) violations for bacteriological contamination. Sixty-six **[66]** of the eighty-one **[81]** systems that had bacteriological MCL violations or approximately **81%** were one-time occurrences.

South Carolina is achieving an overall **99%** compliance rate for bacteriological monitoring and reporting requirements. With such high rates of monitoring compliance, it is expected that more occurrences of minor bacteriological contamination would be identified. Many times these MCL violations can be attributed to work being performed on distribution lines or on wells and are not indicative of the quality of the source itself. In further reviewing the bacteriological data for this report, it was clear that the majority of the violations were seen in groundwater [*i.e.*, well] systems. Another trend noted was that most of the systems are considered small PWSs that collect one **[1]** routine sample per month or quarter. All systems, regardless of size, are required to complete additional sampling and make public notification in response to such MCL violations. The South Carolina Department of Health and Environmental Control's (SCDHEC) Bureau of Water evaluates the results of the bacteriological analyses to identify persistent water quality problems.

Of the remaining systems with MCL violations for contaminants other than bacteriologicals, one **[1]** system exceeded the standard for Arsenic; one **[1]** system exceeded the standard for Ethylene Dibromide (EDB); one **[1]** system exceeded the standard for Trihalomethanes (TTHMs); one **[1]** system exceeded the standard for Haloacetic Acids (HAA5s); one **[1]** system exceeded the standard for both Gross Alpha and Radium 226/228; one **[1]** system exceeded the standard for Uranium; and eight **[8]** systems exceeded the standard for Radium 226/228.

INTRODUCTION

In 1975, SCDHEC was approved by the USEPA to be the primacy agency responsible for the regulatory oversight and enforcement of South Carolina's public drinking water program. This primacy was obtained shortly following the adoption of the 1974 *Safe Drinking Water Act* by the U.S. Congress.

As the primacy agency, SCDHEC is responsible for ensuring that all Public Water Systems (PWSs) monitor for contaminants and report these results according to both state and federal regulatory requirements. In addition, SCDHEC is responsible for certifying that these results are within regulatory limits and that the public is informed of any MCL exceedances. [Note: Refer to page 5 for definitions].

A major part of maintaining this primacy designation is verifying that PWSs are completing all requirements in an appropriate manner and, if not, taking timely and appropriate enforcement action to ensure correction of the problems. A state's primacy status is reviewed each time a new federal rule is adopted and most recently with the adoption of the 1996 *Amendments to the Safe Drinking Water Act*. In periods between these major reviews, the USEPA conducts annual evaluations to ensure that the State is effectively and appropriately overseeing the program.

One part of the 1996 *Amendments to the Safe Drinking Water Act* included a provision for an annual report by the States. The basis, requirements, and applicability of this provision are found in Section 1414[c][3][A][i-ii]. This section reads, in general, as follows:

IN GENERAL - Not later than January 1, 1998, and annually thereafter, each State that has primary enforcement responsibility under Section 1413 shall prepare, make readily available to the public, and submit to the Administrator an annual report on violations of National Primary Drinking Water Regulations by public water systems in the State, including violations with respect to [I] maximum contaminant levels, [II] treatment requirements, [III] variances and exemptions, and [IV] monitoring requirements determined to be significant by the Administrator after consultation with the States [emphasis added].

DISTRIBUTION - The State shall publish and distribute summaries of the report and indicate where the full report is available for review.

This report for calendar year **2006** has been prepared to meet this requirement and to serve as information to the citizens of South Carolina regarding drinking water supplies. As further required by this provision of the 1996 Amendments, the **eleventh** report covering calendar year **2007** will be submitted to the USEPA no later than **July 1, 2008**.

The data sets used for this report are taken largely from the USEPA database, the Safe Drinking Water Information System [SDWIS/State], to which primacy States are required to submit quarterly updates regarding PWS inventory statistics, the incidence of MCL exceedances, major monitoring and treatment technique violations, and enforcement actions taken against those systems with violations. To ensure the accuracy of these data, SCDHEC has cross-referenced all information in the State-maintained database with the information in SDWIS/State, corrected any discrepancies, and reported the actual number and type of violations.

One of the remaining public right-to-know provisions of the 1996 Amendments deals with Consumer Confidence Reports (CCR). All Community PWSs are required to complete a report to their consumers detailing very specific information to include the source of their water, the types of treatment used, and details regarding any violations or contaminant detections in the water during the previous calendar year. The first CCR covered calendar year 1998 and earlier. Each subsequent report is due by July 1st of each year and will cover the most recent data available to the PWS.

GENERAL INFORMATION ON SC PUBLIC WATER SYSTEMS

For the purposes of this report, all water systems addressed will be those which meet the federal definition of a PWS. This definition specifies that such systems are those that provide water via piping or other constructed conveyances for human consumption to **at least fifteen [15] service connections [taps] or to an average of at least twenty-five [25] people for at least sixty [60] days each year** [emphasis added]. These systems are divided into three classifications: **Community [C]** water systems serve approximately the same year-round population [e.g., towns and cities]; **Non-transient non-community [P]** water systems serve at least twenty-five [25] of the same people for at least six [6] months of the year [e.g., schools and industries]; and, **Transient non-community [N]** water systems serve mobile populations [e.g., rest stops, parks, and campgrounds].

At the time of this report, South Carolina has approximately one-thousand four-hundred seventy-six **[1476]** federally-defined PWSs. Categorized by type, there are six-hundred thirty-two **[632]** Type C systems, one-hundred forty-one **[141]** Type P systems and seven-hundred three **[703]** Type N systems. Currently, approximately three-million five-hundred thousand **[3,500,000]** residents of South Carolina are being provided their drinking water from Type C water systems.

There are two **[2]** types of source water classifications for these systems: **groundwater and surface water**. Groundwater systems are those systems depending on wells to provide their drinking water supply; while surface water systems are those systems that depend on lakes, rivers, and streams for their drinking water supply. Currently, four-hundred twenty-six **[426]** of the State's Type C water systems [more than **68%** of the total number] are classified as groundwater systems; however, approximately **3.0** million people in the State [approximately **86%** of the total population served by Type C systems] actually receive their drinking water from surface water systems, even though there are fewer surface water systems in South Carolina.

Not included in this report are **State-defined PWSs**. These are the systems which do not meet the Federal definition of a PWS, but serve more than a single family dwelling. SCDHEC regulates these systems and provides monitoring services that are protective of public health concerns, but are monitoring is not as comprehensive as that required for Federal systems.

In 1994, the *State Safe Drinking Water Act* was amended to add a fee provision. This provision allowed SCDHEC to charge a fee to PWSs that includes providing monitoring services. Upon the enactment of this legislation, SCDHEC began conducting virtually all of the monitoring required for water systems. This means that SCDHEC is charged with scheduling, ensuring proper sample collection, and analytical testing for all of the water systems. The only compliance monitoring **not** currently done by SCDHEC is the routine bacteriological compliance monitoring for the Type C and P systems.

INFORMATION ON VIOLATIONS, COMPLIANCE, AND ENFORCEMENT

This report identifies specific categories of violations. These include the following:

1. **Maximum Contaminant Level (MCL)** - Violations which occur when national limits set by the USEPA on contaminants seen in drinking water are exceeded. They are designed to ensure the water is safe for human consumption;
2. **Treatment Technique (TT)** - Violations which occur when special limits set by the USEPA under some regulations in lieu of MCLs are exceeded. They are designed to control unacceptable levels of certain contaminants such as viruses, bacteria and turbidity; and,
3. **Significant Monitoring (M/R)** - Violations which occur when no samples are taken or no results are reported during a specific compliance period. In the case of surface water systems which must adhere to the *Surface Water Treatment Rule*, a significant or major monitoring violation occurs when fewer than 10% of the required samples are taken or no results are reported during a compliance period.

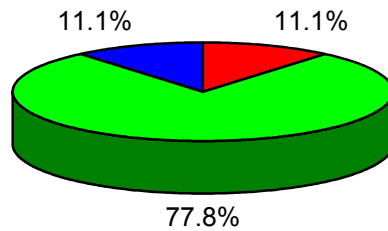
During calendar year **2006**, there were one-hundred forty-four **[144]** systems that incurred a total of two-hundred forty-five **[245]** violations during **2006**. Of the approximate **1%** of systems [or **nine [9]** systems] that were considered to be in significant noncompliance (SNC): seven **[7]** systems are under either a Consent or Administrative Order; one **[1]** system is in enforcement, and one **[1]** has returned to compliance (RTCd). **[Figure 1]**

Of the one-hundred forty-four **[144]** systems that incurred violations, ninety-nine **[99]** or approximately **69%** of the systems incurred only a single violation during the year. Eighty-one **[81]** systems had Maximum Contaminant Level (MCL) violations for bacteriological contamination. Sixty-six **[66]** of the eighty-one **[81]** systems that had bacteriological MCL violations or approximately **81%** were one-time occurrences.

Of the nine **[9]** systems that were considered to be in significant noncompliance (SNC): seven **[7]** systems are under either a Consent or Administrative Order; one **[1]** system is in enforcement, and one **[1]** has returned to compliance (RTCd). While actions taken against SNC systems are a portion of our Enforcement program, they do not encompass the entire effort. Another crucial part of the enforcement process is the issuance of formal Notices of Violation [NOV] when a violation occurs. The issuance of these NOV's also requires that public notice be made and informs the water system of further enforcement action should additional violations occur. During **2006**, fifty-seven **[57]** systems of the one-hundred forty-four **[144]** systems or approximately **40%** returned to compliance after the issuance of a NOV.

FIGURE 1

**Public Water System Enforcement Actions
Significant Non-Compliance (SNC) Systems
for
Calendar Year 2006**



- Returned to Compliance (RTC) - 1 Systems
- Consent Orders (CO) - 7 Systems
- Enforcement - 1 Systems

When PWSs continue to incur violations they are referred to the Drinking Water Enforcement Section so that appropriate action can be taken to remedy the situation and return the systems to compliance. SCDHEC issued Orders to fourteen **[14]** PWSs, or approximately **9.7%**, of the one-hundred forty-four **[144]** PWSs incurring violations in **2006**. Fifty-seven **[57]** PWSs, or approximately **39.6%** have returned to compliance. Three **[3]** PWSs, or approximately **2.1%** are in the enforcement process. The remaining seventy **[70]** PWSs, or approximately **48.6%** have had warning letters sent, but have not had a significant number of violations which would require them to be referred to Enforcement for action. **[Figure 2]**

The overall strategy in the Drinking Water Enforcement Program is to take the appropriate enforcement action to bring about compliance prior to a system reaching the point of SNC or, of course, any time a public health or environmental threat exists. As a result of this effort, we are seeing that more and more PWSs respond immediately and pro-actively upon notification of initial violations, as is illustrated by the information presented in the previous paragraph.

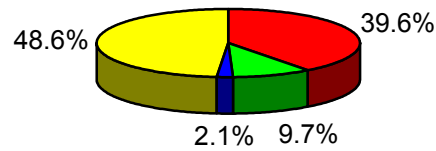
In addition to a strong enforcement program, SCDHEC implements a comprehensive sanitary survey program. This program consists of an inspection of the entire water system whereby the inspector looks for operational and maintenance deficiencies that are in violation of regulatory requirements or may cause problems within the water system. This is an excellent way to judge how each water system in the State is performing, allowing us to find and correct deficiencies before a violation occurs, and to offer the system hands-on technical assistance.

Another way SCDHEC is able to identify and help correct deficiencies are through the bacteriological oversight monitoring program. SCDHEC collects samples from **all** water PWSs in the State on a regular basis, even on those PWSs required to complete their own bacteriological compliance monitoring. By doing this, SCDHEC can often identify bacteriological contaminants in a water system that may have gone undetected without this additional monitoring. This way the water system can take immediate action to alleviate any potential health effects to its consumers.

In conjunction with the State's water PWSs, SCDHEC is developing and implementing well head and source water protection programs. These programs are designed to help the PWSs locate potential contamination sources that may impact the water source and begin protecting against those now, rather than waiting until contamination appears at the consumer's tap. This effort, too, will go a long way in protecting both our ground and surface waters.

FIGURE 2

**Public Water System Enforcement Actions
All Systems with Violations for
Calendar Year 2006**



■ RTC - 57 SYS

■ CO - 14 SYS

■ ENFORCEMENT - 3 SYS

■ WARNING LETTERS - 70 SYS

In late 1998 and early 1999, SCDHEC began issuing Water System Operating Permits to all existing PWSs. These operating permits are the mechanisms by which the capacity development approach is being implemented. Capacity development [formerly known as 'viability'] is designed to focus on a water system's ability to meet the technical, managerial, and financial responsibilities of complying with applicable laws and regulations. Each operating permit requires the submission of a business plan whenever a system receives an overall unsatisfactory rating on an SCDHEC sanitary survey inspection. This unsatisfactory rating may also be the trigger for an enforcement action, if one is not already underway with the system. Using the capacity development and enforcement tools in tandem will enable SCDHEC to ensure that a PWS is indeed viable and in turn, ensure that the system will be able to maintain compliance with current and future regulatory requirements.

Appendix B contains a list of those PWSs that incurred an MCL violation during **2006**. The number and type of violations for calendar year **2006** are available in **Appendix A**.

The State had a total of one-hundred forty-four **[144]** PWSs with a total of two-hundred forty-two **[245]** violations. **[Figure 3.1]** One-hundred fifty-seven **[157]** of the violations were for water quality. The remaining ninety-seven **[97]** were monitoring/reporting violations. **[Figure 3.2]** There was a total of two-hundred twenty-four **[224]** violations for bacteriological; fifty-three **[53]** chemical (including radionuclides); twenty-three **[23]** lead and copper; three **[3]** surface water treatment rule (SWTR). **[Figure 3.3]**

USEPA DEFINITIONS OF SIGNIFICANT NONCOMPLIANCE [SNC]

Contaminant Rule	SNC Definition
Surface Water Treatment Rule	4 or more treatment technique violations in any 12 consecutive months or a combination of 6 violations including treatment technique violations and major monitoring and reporting violations in any 12 consecutive months.
Total Coliform Rule (Bacteriological)	4 or more combined MCL or major repeat monitoring/reporting violations in any 12 consecutive months or 6 or more combined MCL or major repeat or routine monitoring/reporting violations in any 12 consecutive months or 10 or more combined MCL or monitoring/reporting violations (major and minor) in any 12 consecutive months.
Chemical/Radiological	MCL: Exceeds the unreasonable risk to health for a given contaminant. Monitoring/Reporting: Fails to monitor or report for 2 or more consecutive compliance periods.
Phase II/V (Additional chemicals)	MCL: Exceeds the short term acceptable risk level for a given contaminant or exceeds the MCL (but not the unreasonable risk to health level) for a period of greater than 7 years. Monitoring/Reporting: For a monitoring period of 1 year or less, 2 consecutive major monitoring/reporting violations. For a monitoring period of greater than 1 year, 1 major monitoring/reporting violation.
Lead and Copper Rule	Initial monitoring/reporting: A system that does not correct the violation within 3 months (large systems), 6 months (medium systems), or 12 months (small systems). Treatment Installation: A system that has not met the installation deadline and has a lead action level of 30 parts per billion (ppb) or greater. Public Education: A system that has not met the public education requirements and has a lead action level of 30 ppb or greater.

FIGURE 3.1

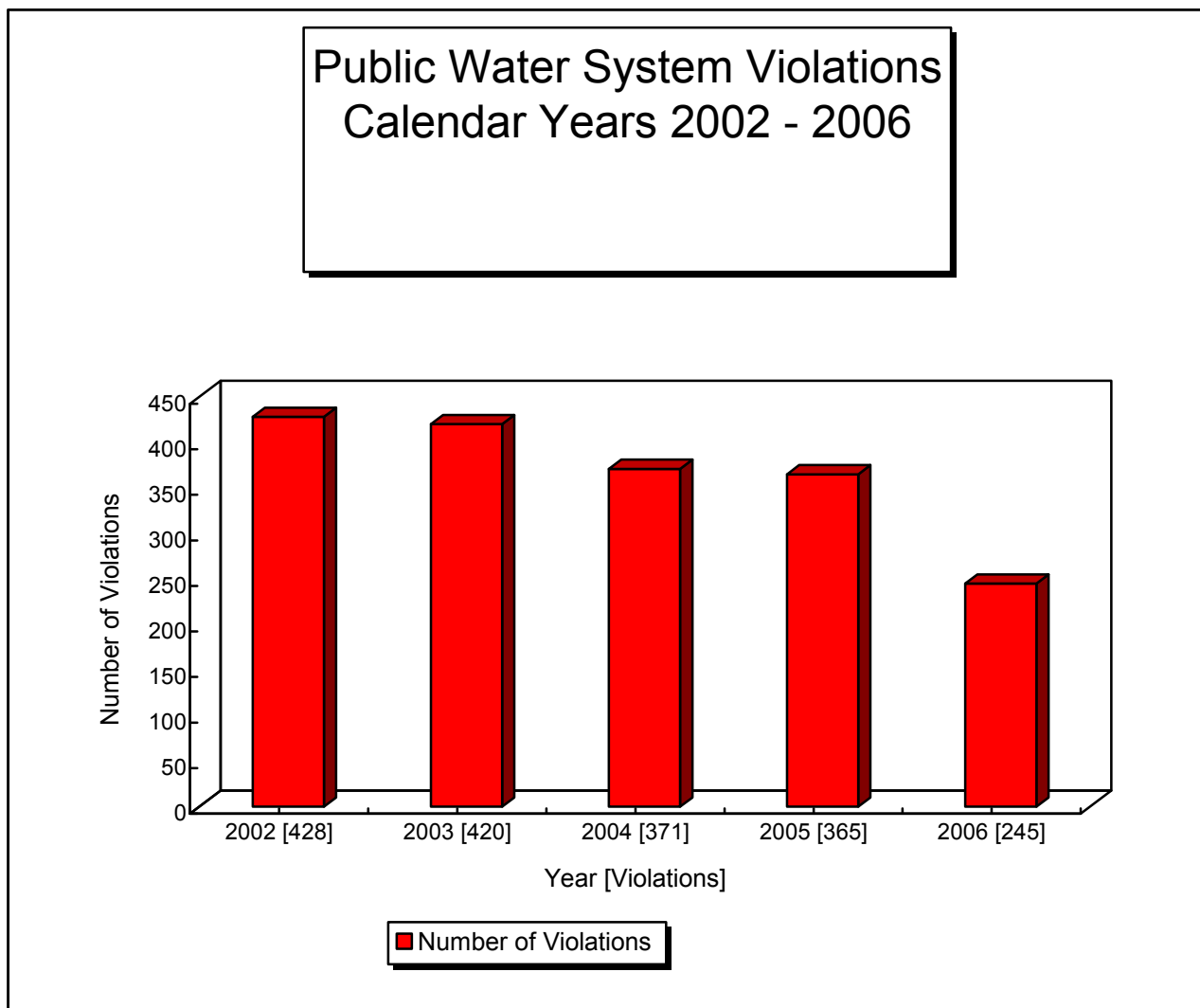


FIGURE 3.2

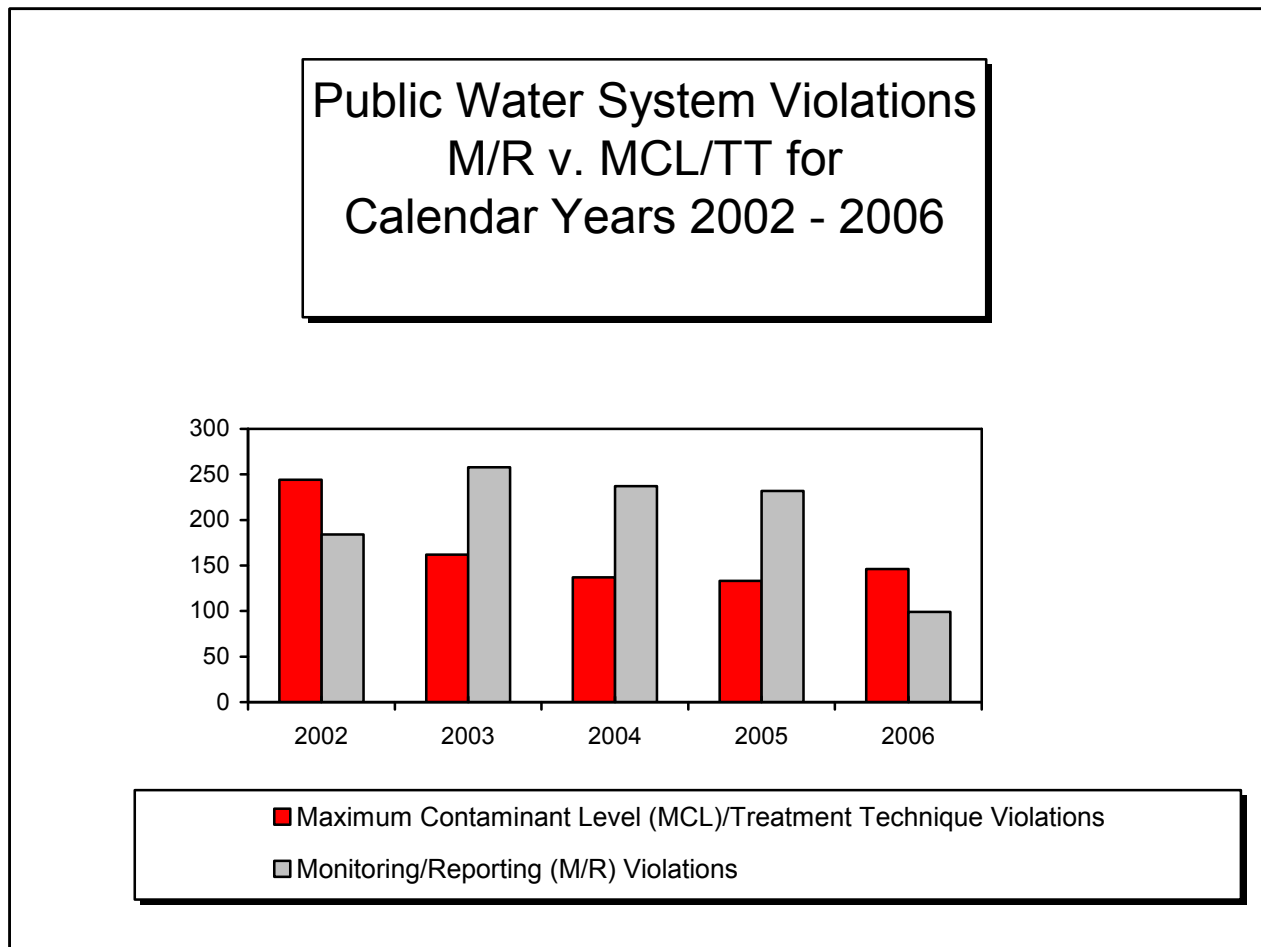
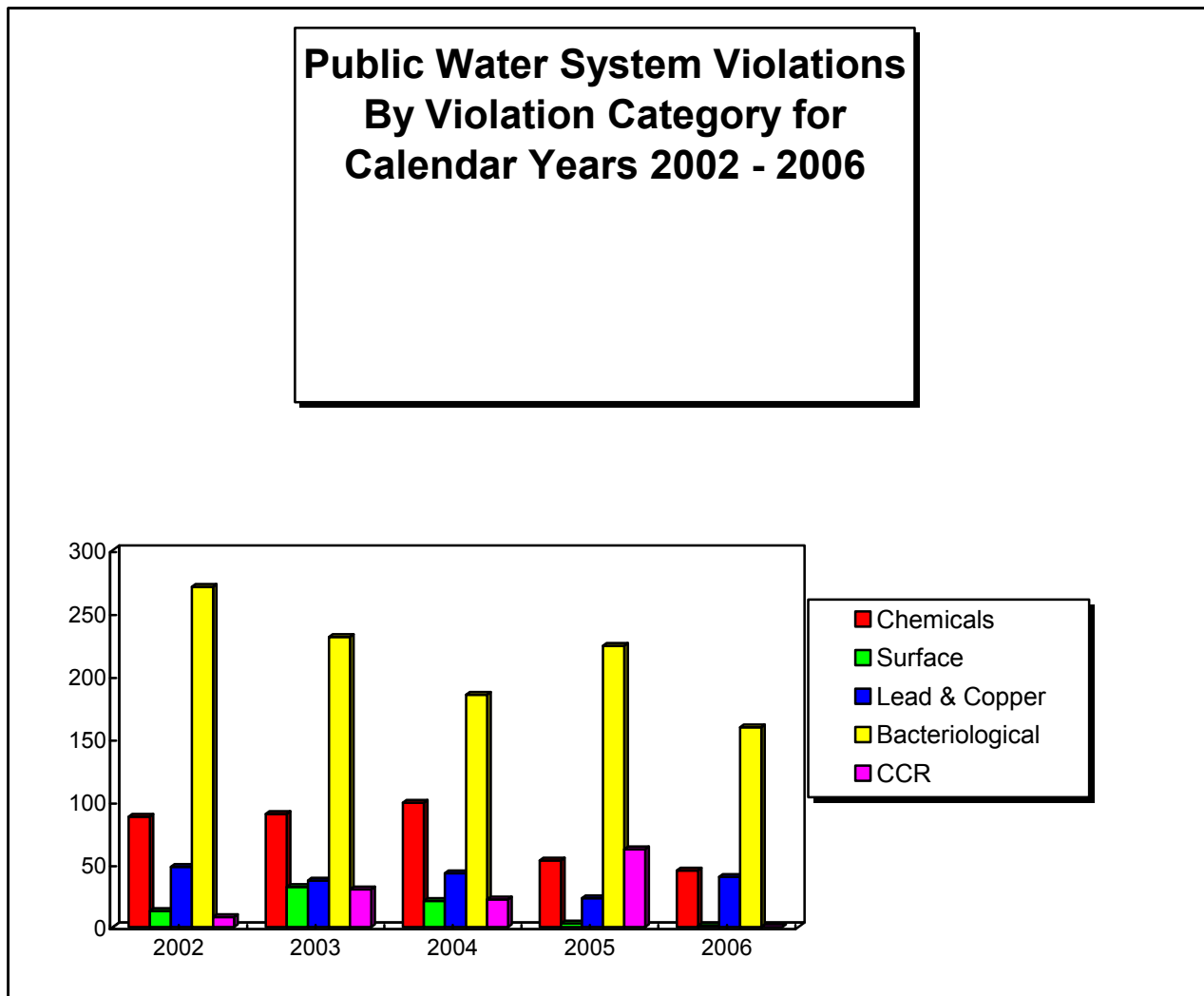


FIGURE 3.3



INFORMATION ON VARIANCES AND EXEMPTIONS

Variances and exemptions to specific requirements of the *Safe Drinking Water Act Amendments of 1996* may be granted under certain circumstances. If, due to the characteristics of the water sources available, a PWS cannot meet an MCL, SCDHEC, as a primacy agency can grant a variance to that system for a specific regulatory requirement on the condition that the system install the best available technology, treatment technique, or means deemed available provided that SCDHEC finds that such a variance will not result in an unreasonable risk to health. At the time the variance is granted, SCDHEC must give the PWS a schedule whereby it must achieve compliance with the MCL. Small PWSs [those serving 3,300 or fewer consumers] may be granted variances if they cannot afford [must be demonstrated to the standards of the USEPA] to comply with certain MCLs [excluding bacteriological requirements] by means of treatment, alternative water source, or consolidation. These PWSs must, however, install and operate an approved small system variance technology. As previously stated, this small system variance must also ensure adequate protection of human health and must be reviewed at least once every five (5) years for continued variance eligibility.

SCDHEC may also exempt a PWS from complying with an MCL, treatment technique or both if its non-compliance results from extenuating circumstances [e.g., financial hardship, system already in operation on the date of promulgation of the regulations, or new system with no other reasonable source of drinking water]. Exemptions must also be protective of human health and must require that the PWS come into compliance as soon as is practically possible but not later than three (3) years after the applicable regulatory compliance date.

During calendar year 2006, SCDHEC did not grant any variances or exemptions from applicable MCL or treatment technique requirements.

CONCLUSIONS

This report is designed to provide the consumers in the State of South Carolina information which may be useful in assessing the quality of their drinking water and the success of SCDHEC's compliance and enforcement activities. It is hoped that by disseminating this information, the consumers will become more aware of their individual water PWSs and ask questions of them or of SCDHEC when they see or hear something that they do not understand.

Appendix A provides a detailed presentation of the type and number of violations that occurred during calendar year **2006**. In addition, **Appendix B** gives a complete list of PWSs that incurred water quality violations during the same time period. When reviewing the information in these Appendices, here are a few facts which may help in interpreting the meaning of these numbers:

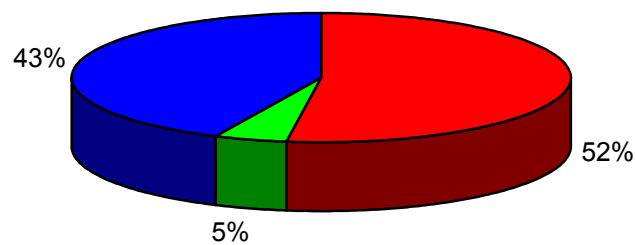
1. Of the sixty-six [66] possible violation categories included, seven [7] categories were violated by South Carolina's PWSs. In fact, if every federally-defined PWS in South Carolina had either a monitoring/reporting (M/R), Maximum Contaminant Level (MCL); Treatment Technique (TT), or any combination thereof for each of the noted violation categories during calendar year **2006**, the total number of possible violations would exceed **40,000**. Therefore, the actual number of violations, two-hundred forty-five [245] noted in calendar year **2006** is less than **1%** of the potential number of violations.
2. The largest number, one-hundred [100] MCL violations were for bacteriological contaminants. It is also useful to note that sixty-eight [66] or **66%** of these MCL exceedances were one-time occurrences and were corrected immediately.
3. Thirty-four [34] radionuclide MCL violations were noted during **2006**. These violations occurred in fifteen [9] PWSs which utilized groundwater as their source. It was from these wells that naturally-occurring radionuclides entered the PWSs. These PWSs have been required to inform their customers of the quality of the water and that action is being taken to either add treatment, replace the well(s) or to obtain another suitable water source. The PWSs and SCDHEC are continuing to work toward bringing these PWSs back into compliance.
5. Thirty-five [35] PWSs incurred sixty [60] M/R violations for bacteriological contaminants. It is useful to know that most of the PWSs included in this report must monitor monthly, which makes for a higher percentage of possible violations.
6. Water quality violations noted in this report were attributed as follows: thirty-seven [37] Type C PWSs incurred seventy-five [75] violations; seven [7] Type P PWSs incurred eight [8] violations; and thirty-nine [39] Type N PWSs incurred forty-one [41] violations. [Figure 4.1] For overall violations [water quality and M/R]; seventy-three [73] Type C PWSs incurred one-hundred forty-five [145] violations; twenty-one [21] Type P PWSs incurred thirty-six [36] violations; and, fifty-one [51] Type N PWSs incurred sixty-four [64] violations [Figure 4.2]

7. A total of six-hundred thirty-nine **[630]** PWSs were required to complete an annual Consumer Confidence Report (CCR) and submit a copy to the Department by July 1, 2004. One-hundred nine **[109]** PWSs failed to submit their report on time. Of the one-hundred nine **[109]** PWSs, all have returned to compliance.

In summary, South Carolina's PWSs and SCDHEC continue to work together and do a commendable job in providing quality drinking water for South Carolinians. Of the State's PWSs approximately **90%** were in compliance with all of the regulatory requirements during calendar year **2006**.

FIGURE 4.1

**Public Water System Violations
Water Quality Violations by System Type for
Calendar Year 2006**

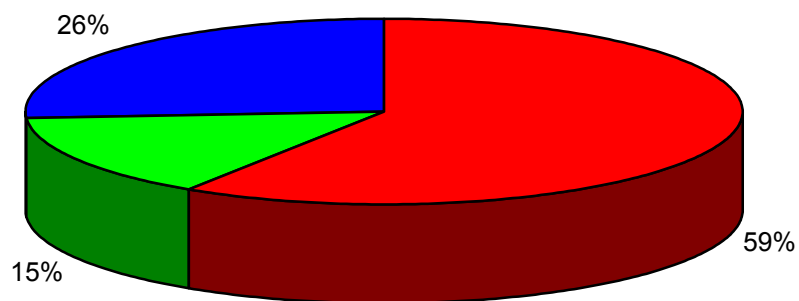


■ TYPE C - 37 SYS/75 VIOL
■ TYPE N - 52 SYS/62 VIOL

■ TYPE P - 7 SYS/8 VIOL

FIGURE 4.2

**Public Water System Violations
Total Violations by System Type for Calendar
Year 2006**



■ Type C - 73 SYS/145 VIOL

■ Type P - 21 SYS/36 VIOL

■ Type N - 51 SYS/64 VIOL

REPORT DISTRIBUTION AND AVAILABILITY

Notification of the availability of this report was accomplished through an SCDHEC press release, through articles appearing in the Bureau of Water's quarterly publication, the Newsleak, and through the Internet on the Bureau of Water web page.

Copies of this report or previous years' reports may be obtained by contacting Mr. Bruce Bleau with SCDHEC's Bureau of Water at **(803) 898-4154** or by fax at **(803) 898-3795** or by E-mail at **bleaubp@dhec.sc.gov** or by writing to 2600 Bull Street, Columbia, SC, 29201. The report will also be made available on the Bureau of Water web page at www.scdhec.gov/water. Any additional information not contained in this particular report may be obtained through SCDHEC's Freedom of Information Office at **(803) 898-3880** or by writing to the above address. The USEPA will be compiling a national summary of state reports that will also be made available after completion and can be obtained through the USEPA-Region IV office at 61 Forsyth Street SW, Atlanta, GA, 30303-8960 or through the above-named SCDHEC contact.

APPENDIX A

VIOLATIONS TABLE FOR

CALENDAR YEAR 2006

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes	MCL (mg/l) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2063	2,3,7,8-TCDD (Dioxin)	0	0			0	0
2110	2,4,5-TP	0	0			0	0
2105	2,4-D	0	0			0	0
2265	Acrylamide			0	0		
2051	Alachlor	0	0			0	0
2050	Atrazine	0	0			0	0
2990	Benzene	0	0			0	0
2306	Benzo[a]pyrene	0	0			0	0
2046	Carbofuran	0	0			0	0

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes	MCL (mg/l) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2982	Carbon tetrachloride	0	0			0	0
2959	Chlordane	0	0			0	0
2380	cis-1,2-Dichloroethylene	0	0			0	0
2031	Dalapon	0	0			0	0
2035	Di(2-ethylhexyl)adipate	0	0			0	0
2039	Di(2-ethylhexyl)phthalate	0	0			0	0
2964	Dichloromethane	0	0			0	0
2041	Dinoseb	0	0			0	0

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes		MCL (mg/l) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2032	Diquat	0.02	0	0			0	0
2033	Endothall	0.1	0	0			0	0
2005	Endrin	0.002	0	0			0	0
2257	Epichlorohydrin				0	0		
2992	Ethylbenzene	0.7	0	0			0	0
2946	Ethylene dibromide	0.00005	4	1			0	0
2034	Glyphosate	0.7	0	0			0	0
2065	Heptachlor	0.0004	0	0			0	0
2067	Heptachlor epoxide	0.0002	0	0			0	0
2274	Hexachlorobenzene	0.001	0	0			0	0

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes	MCL (mg/ℓ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2042	Hexachlorocyclopentadiene	0	0			0	0
2010	Lindane	0	0			0	0
2015	Methoxychlor	0	0			0	0
2989	Monochlorobenzene	0	0			0	0
2968	o-Dichlorobenzene	0	0			0	0
2969	para-Dichlorobenzene	0	0			0	0
2383	Total polychlorinated biphenyls	0	0			0	0
2326	Pentachlorophenol	0	0			0	0

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes	MCL (mg/l) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2987	Tetrachloroethylene	0	0			0	0
2984	Trichloroethylene	0	0			0	0
2996	Styrene	0	0			0	0
2991	Toluene	0	0			0	0
2979	trans-1,2-Dichloroethylene	0	0			0	0
2955	Xylenes (total)	0	0			0	0
2020	Toxaphene	0	0			0	0
2036	Oxamyl (Vydate)	0	0			0	0
2040	Picloram	0	0			0	0
2037	Simazine	0	0			0	0

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes	MCL (mg/l) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
2976	Vinyl chloride	0	0			0	0
VOC	ALL Volatiles	0	0			0	0
2456	Haloacetic Acids (HAA5)	1	1			0	0
2950	Total trihalomethanes	2	1			0	0
	Inorganic Contaminants						
1074	Antimony	0	0			0	0
1005	Arsenic	4	1			0	0
1094	Asbestos	0	0			0	0

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes		MCL (mg/ℓ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
		fibers/ℓ ≤ 10 μm long						
1010	Barium	2	0	0			0	0
1075	Beryllium	0.004	0	0			0	0
1015	Cadmium	0.005	0	0			0	0
1020	Chromium	0.1	0	0			0	0
1024	Cyanide (as free cyanide)	0.2	0	0			0	0
1025	Fluoride	4.0	0	0			0	0
1035	Mercury	0.002	0	0			0	0
		10 (as						

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes		MCL (mg/l) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
			Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
1040	Nitrate	Nitrogen)	0	0			0	0
1041	Nitrite	1 (as Nitrogen)	0	0			0	0
1045	Selenium	0.05	0	0			0	0
1085	Thallium	0.002	0	0			0	0
1038	Total nitrate and nitrite	10 (as Nitrogen)	0	0			0	0
	Radionuclide MCLs							
4000	Gross alpha	15 pCi/l	2	1			0	0
4010	Radium-226 and radium-228	5 pCi/l	28	10			0	0
			4	1				

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes	MCL (mg/l) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
4006	Uranium					0	0
	Subtotal	45	16			0	0
	Total Coliform Rule						
21	Acute MCL violation	1	1				
22	Non-acute MCL violation	98	82				
23,25	Major routine and follow up monitoring					60	36
28	Sanitary survey ²					0	0
	Subtotal	99	83			60	36

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes	MCL (mg/l) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
	Surface Water Treatment Rule (Filtered Systems)						
27	M/R Stage I					0	0
36	Monitoring, routine/repeat					0	0
41	Treatment techniques			0	0		
46	TT Precursor Removal			0	0		
	Subtotal			0	0	0	0
	Lead and Copper Rule						

State:	SOUTH CAROLINA
Reporting Interval:	CALENDAR YEAR 2006

SDWIS Codes	MCL (mg/l) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations
51						0	0
52						40	25
58,62				0	0		
65				0	0		
				0	0	40	25
71						0	0

-
1. Values are in milligrams per liter (mg/ℓ), unless otherwise specified.
 - ²2. Number of major monitoring violations for sanitary survey under the Total Coliform Rule.

Definitions for Violations Table

The following definitions apply to the Summary of Violations table.

Filtered Systems: Water systems that have installed filtration treatment [40 CFR 141, Subpart H].

Inorganic Contaminants: Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. EPA has established MCLs for 15 inorganic contaminants [40 CFR 141.62].

Lead and Copper Rule: This rule established national limits on lead and copper in drinking water [40 CFR 141.80-91]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. States report violations of the Lead and Copper Rule in the following six categories:

Initial lead and copper tap M/R: SDWIS Violation Code 51 indicates that a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

Follow-up or routine lead and copper tap M/R: SDWIS Violation Code 52 indicates that a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

Treatment installation: SDWIS Violation Codes 58 AND 62 indicate a failure to install optimal corrosion control treatment system (58) or source water treatment system (62) which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in these two categories].

Public education: SDWIS Violation Code 65 shows that a system did not provide required public education about reducing or avoiding lead intake from water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) unless otherwise specified.

Monitoring: EPA specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow EPA's schedule or methodology is in violation [40 CFR 141].

States must report monitoring violations that are significant as determined by the EPA Administrator and in consultation with the States. For purposes of this report, significant monitoring violations are major violations and they occur when no samples are taken or no results

are reported during a compliance period. A major monitoring violation for the surface water treatment rule occurs when at least 90% of the required samples are not taken or results are not reported during the compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. EPA has set legal limits on 54 organic contaminants that are to be reported [40 CFR 141.61].

Radionuclides: Radioactive particles which can occur naturally in water or result from human activity. EPA has set legal limits on four types of radionuclides: radium-226, radium-228, gross alpha, and beta particle/photon radioactivity [40 CFR 141]. Violations for these contaminants are to be reported using the following three categories:

Gross alpha: SDWIS Contaminant Code 4000 for alpha radiation above MCL of 15 picocuries/liter. Gross alpha includes radium-226 but excludes radon and uranium.

Combined radium-226 and radium-228: SDWIS Contaminant Code 4010 for combined radiation from these two isotopes above MCL of 5 pCi/L.

Reporting Interval: The reporting interval for violations to be included in the first PWS Annual Compliance Report, which is to be submitted to EPA by January 1, 1998, is from July 1, 1996 through June 30, 1997. This interval will change for future annual reports. See guidance language for these intervals.

SDWIS Code: Specific numeric codes from the Safe Drinking Water Information System (SDWIS) have been assigned to each violation type included in this report. The violations to be reported include exceeding contaminant MCLs, failure to comply with treatment requirements, and failure to meet monitoring and reporting requirements. Four-digit SDWIS Contaminant Codes have also been included in the chart for specific MCL contaminants.

Surface Water Treatment Rule: The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water [40 CFR 141, Subpart H]. Violations of the "Surface Water Treatment Rule" are to be reported for the following four categories:

Monitoring, routine/repeat (for filtered systems): SDWIS Violation Code 36 indicates a system's failure to carry out required tests, or to report the results of those tests.

Treatment techniques (for filtered systems): SDWIS Violation Code 41 shows a system's failure to properly treat its water.

Monitoring, routine/repeat (for unfiltered systems): SDWIS Violation Code 31 indicates a system's failure to carry out required water tests, or to report the results of those tests.

Failure to filter (for unfiltered systems): SDWIS Violation Code 42 shows a system's failure to properly treat its water. Data for this violation code will be supplied to the States by EPA.

Total Coliform Rule (TCR): The Total Coliform Rule establishes regulations for microbiological contaminants in drinking water. These contaminants can cause short-term health problems. If no samples are collected during the one month compliance period, a significant monitoring violation occurs. States are to report four categories of violations:

Acute MCL violation: SDWIS Violation Code 21 indicates that the system found fecal coliform or E. coli, potentially harmful bacteria, in its water, thereby violating the rule.

Non-acute MCL violation: SDWIS Violation Code 22 indicates that the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation. For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform is a violation.

Major routine and follow-up monitoring: SDWIS Violation Codes 23 AND 25 show that a system did not perform any monitoring. [One number is to be reported for the sum of violations in these two categories.]

Sanitary Survey: SDWIS Violation Code 28 indicates a major monitoring violation if a system fails to collect 5 routine monthly samples if sanitary survey is not performed.

Treatment Techniques: A water disinfection process that EPA requires instead of an MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the Surface Water Treatment and the Lead and Copper Rules have also been included in this category of violation for purposes of this report.

Unfiltered Systems: Water systems that do not need to filter their water before disinfecting it because the source is very clean [40 CFR, Subpart H].

Violation: A failure to meet any state or federal drinking water regulation.

APPENDIX B

SYSTEM-SPECIFIC MAXIMUM CONTAMINANT

LEVEL/TREATMENT TECHNIQUE

VIOLATIONS TABLE FOR

CALENDAR YEAR 2006

STATE: SOUTH CAROLINA
REPORTING INTERVAL: CALENDAR YEAR
2006

SYS #	SYSTEM	VIOL	CODE	
	COMMUNITY			
	RADIONUCLIDES (ALPHA)			
0150014	USSC - PURDY SHORES	02	4000	CO
	RADIONUCLIDES (RADIUM 226/228)			
0210002	JACKSON, TOWN OF	02	4010	CO
3220001	GILBERT-SUMMIT W/D	02	4010	NOV
3250058	CWS/ GLENN VILLAGE II	02	4010	CO
3250075	AAA/MILL POND	02	4010	CO
3260005	JACKSON MHP	02	4010	CO
3260064	RED OAK MHP	02	4010	CO
4050008	USSC/CHARLIESWOOD S/D	02	4010	CO
4060055	NORTH GATE MHP	02	4010	CO
	RADIONUCLIDES (URANIUM)			
3750026	KEOWEE BAY S/D	02	4006	CO
	ARSENIC			
1360019	WALNUT RIDGE MHP	02	1005	CO
	ETHYLENE DIBROMIDE (EDB)			
4320002	WEDGEFIELD/STATEBURG WD	02	2946	CO
	HALOACETIC ACIDS (HAA5)			
3210002	BATESBURG LEESVILLE DPW	02	2456	NOV
	TOTAL TRIHALOMETHANES (TTHM)			
4610001	YORK, CITY OF	02	2950	NOV
	BACTERIOLOGICALS (ACUTE)			
2220003	BROWNS FERRY WATER CO	21	3100	CO
	BACTERIOLOGICALS (ACUTE)			
0410004	BELTON, CITY OF	22	3100	RTC
0420001	HOMELAND PARK W/D	22	3100	NOV
0820006	AD HARE WATERWORKS INC	22	3100	NOV
1470109	WILLOWGLEN ACADEMY	22	3100	NOV
1720001	TRICO WATER COMPANY	22	3100	RTC
2220003	BROWNS FERRY WATER CO	22	3100	CO
2460024	CALLISON RENTAL UNITS LLC	22	3100	NOV
2510005	VARNVILLE, TOWN OF	22	3100	NOV
3020001	LAURENS COUNTY W&S COMM	22	3100	RTC
3050008	RANCH ROAD WATER	22	3100	NOV
3210001	LEXINGTON, CITY OF	22	3100	NOV
3220003	LEX CO JOINT MUNI WSC	22	3100	NOV

**REPORTING INTERVAL: CALENDAR YEAR
2006**

3250014	AAA/MURRAY HILL EST	22	5000	RTC
3250024	AAA/HILTON SOUND	22	3100	RTC
3260049	TRIPLE ACRES MHP #1	22	3100	NOV
3320001	MARCO RURAL WATER CO	22	3100	NOV
3750008	ISAGUEENA POINT UTIL SYS	22	3100	RTC
3810006	EUTAWVILLE, TOWN OF	22	3100	NOV
4060014	HORRELL HILL MHP	22	3100	NOV
4150007	AAA/PERRY WATER SYSTEM	22	3100	RTC
4210003	SWS LANDRUM WTP	22	3100	RTC
4320003	HIGH HILLS	22	3100	NOV
4420001	MEANSVILLE RILEY W/D	22	3100	RTC
4650019	LOST COLONY S/D	22	3100	NOV
	NON-COMMUNITY NON-TRANSIENT			
	BACTERIOLOGICAL			
0930003	DEVRO-TEEPAK	22	3100	RTC
1470108	PAXVILLE HEAD START	22	3100	RTC
3750022	TURTLEHEAD S/D	22	3100	RTC
3870902	PILOT TRAVEL VENTERS LLC	22	3100	NOV
4070112	CROSSROAD COMMUNITY CARE	22	3100	NOV
4070903	MCENTIRE NG	22	3100	ENF
4070911	SCARNG TRAINING SITE	22	3100	RTC
	TRANSIENT			
	BACTERIOLOGICAL			
0172001	FORRESTER RESTAURANT	22	3100	NOV
0172002	COLD SPRING COUNTRY STORE	22	3100	RTC
0670912	SHELTONS FOOD STORE	22	3100	NOV
0870856	CRAWFORD LANDING	22	3100	NOV
0872010	A PLACE IN THE WOODS	22	3100	NOV
0970875	CALHOUN COUNTRY CLUB	22	3100	NOV
0970903	EZ SHOP 22/SWEETWATER SH	22	3100	RTC
1070247	OLD POST OFFICE REST.	22	3100	NOV
1070804	LAKE AIRE RV PARK LLC	22	3100	RTC
1070922	BULLS BAY GENERAL STORE	22	3100	RTC
1079011	IRVIN-HOUSE VINEYARDS	22	3100	NOV
1270905	97 EXPRESS	22	3100	NOV
1470678	CAMP ROBINSON	22	3100	RTC

**REPORTING INTERVAL: CALENDAR YEAR
2006**

1570917	BOBOP'S AMOCO-CANADYS	22	3100	CO
1570920	JACKSONBORO CITGO ANGLER	22	3100	RTC
1870676	BROSNAN FOREST #2	22	3100	RTC
1870912	JRS GROCERY	22	3100	NOV
2070975	CAMP LONGRIDGE	22	3100	RTC
2370676	CAMP OLD INDIAN	22	3100	NOV
2370802	BEECH SPRINGS CAMPGROUND	22	3100	NOV
2470851	HARRIS LANDING	22	3100	NOV
2472000	HASH HOUSE OF TROY	22	3100	NOV
2570203	SIMCO TRAVEL PLAZA INC	22	3100	RTC
3070801	MAGNOLIA FAMILY CAMPGROUND	22	3100	RTC
3270850	PUTNAMS LANDING	22	3100	NOV
3270877	COLDSTREAM COUNTRY CLUB	22	3100	NOV
3279014	MR J CONVENIENCE STORE	22	3100	NOV
3570603	SCPRT/HAMILTON BRANCH	22	3100	NOV
3630801	DOWDS BAR-B-Q	22	3100	NOV
3670800	SALUDA RIVER RESORT	22	3100	RTC
3670912	BUSH RIVER JERSEYS	22	3100	NOV
3672004	PO MARYS	22	3100	NOV
3770659	OCONEE STATEION	22	3100	NOV
3770806	FALL CREEK VILLAGE C/G	22	3100	NOV
3770807	DIAKONIA CENTER	22	3100	NOV
3772003	THE KITCHEN TABLE	22	3100	RTC
3870403	MOUNTAINEER MOTEL & C/G	22	3100	NOV
3870937	H&L CONVENIENCE STORE	22	3100	NOV
4070400	ANY DAY INN	22	3100	NOV
4070914	JAYRS STOP N SHOP	22	3100	NOV
4070960	WB LOUNGE	22	3100	CO
4150004	BLACKSGATE WEST	22	3100	NOV
4170005	MPP FRICK CAMP #16	22	3100	NOV
4370601	POINSETT STATE PARK CAMP	22	3100	RTC
4572004	SCOTTS BAR-B-QUE	22	3100	NOV
4670881	SCPRT/KINGS MTN CG	22	3100	NOV
4670933	GAINEY PROPERTIES LLC	22	3100	RTC
4670974	J & W SUPERETTE	22	3100	RTC
4670977	TC SHAVED ICE	22	3100	RTC
4672006	SLO-SMOKIN	22	3100	RTC